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AUG - 9 2011

Federal Communications Commission
Office of the Secretary**Comment to FCC about LightSquared**

SAT-MOD-20101118-00239

<http://licensing.fcc.gov/myibfs/pleading.do>

Results from the Technical Working Group, as well as common sense, tell us that LightSquared's ground-based radio signals (1525 – 1559 MHz) – transmitting at well over a billion times more power than the GPS satellite signals – will disrupt the GPS signals in their adjacent radio spectrum (L1, 1575.42 MHz).

I have worked as a consultant to city and county governments, and private utility companies, helping them use Geographic Information System (GIS) technology, for over 30 years. The basis for locating and mapping the roads, fire trucks, pipelines, land parcels, and environmental habitats that are of concern to my clients - and ultimately to their citizens and customers - is measurement derived from GPS observation. Disrupting GPS would disrupt the very core of our civic institutions and operations.

If LightSquared were allowed to use their part of the spectrum for ground-based cell phone transmission, there are no technical means to insulate nor mitigate the disruption to all GPS users with current technology – and hundreds of billions of dollars have been invested in this technology.

This is a problem that doesn't have to happen. The FCC can rescind its conditional approval of the radio spectrum for ground-based transmission use. As you know, LightSquared originally purchased the spectrum with the expressed purpose of Mobil Satellite Service (MSS), and only recently applied for a conditional waiver to repurpose the spectrum ("modification of its Ancillary Terrestrial Component"). Such a modification would disable a vital national resource. It must be rescinded.

The potential windfall profit to LightSquared's owner, Harbinger Capital Partners, for gaining approval to use this spectrum (perhaps up to \$12 Billion) is insignificant compared to the loss of productivity attributable to high-accuracy GPS reception (over \$96 Billion a year, every year). The FCC could encourage LightSquared to use this spectrum for MSS purposes only, or it could require LightSquared to build its cell phone network using a different spectrum. The current ill-conceived, dangerous, disruptive project must not be implemented.